

**SONY**

Network Video Monitoring  
& CCTV Product Guide 2005

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Smarter security solutions from Sony



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CA Video Monitoring Pocket Guide/GB-05/10/2004

You make it a Sony

## Create a safer, more secure environment

Today more than ever, Closed Circuit Television (CCTV) is playing a vital role in the safeguarding of people, property and other assets.

With increasing public awareness of the threats of terrorism, assault, vandalism and theft, the security of every citizen is a higher priority than ever for public authorities as well as commercial organisations. From banks, offices, hospitals and schools to shopping malls, airports, stations and other public areas, a discreet monitoring presence offers the valuable round-the-clock reassurance of a safer, more secure environment.

As a leader in CCTV and network video monitoring, Sony offers a complete range of products that make it easier than ever to create exactly the right solution to meet your current and future needs.

From latest-generation network video cameras, file servers and RealShot camera management software to digital video recorders, monitors, printers and accessories, you'll find that every Sony CCTV product has been designed with performance, reliability and ease of integration in mind.

Whether you're looking to expand your existing CCTV installation or create an all-new network-based monitoring solution with powerful image distribution and control capabilities, Sony products can enhance the value of your current investments while delivering flexible new monitoring possibilities. Best of all, every CCTV product comes with the back-up and peace of mind that you'd expect from Sony.

Visit us at [www.sonybiz.net](http://www.sonybiz.net) for more information on our complete range of CCTV and video surveillance products as well as case studies, white papers, special offers and more. Alternatively, talk to your local Sony office or security systems specialist. They'll be delighted to tell you more about the capabilities of Sony CCTV products and help you create a video monitoring solution that's flexible, reliable and remarkably cost-effective.

## Network Video Monitoring

<b>Network Video Cameras</b>	p 04
<b>Network Video Recorders and Servers</b>	p 08
<b>Network Video Software and Peripherals</b>	p 11

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## CCTV Solutions

<b>Video Cameras</b>	p 12
<b>Video Recorders and Control Devices</b>	p 19
<b>Video Monitors</b>	p 22
<b>Printers</b>	p 23

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<b>Specifications</b>	p 25
<b>System Examples</b>	p 46

## SNC-RZ30P

### Network Video Pan-Tilt-Zoom Camera

- IP network colour video camera with integrated Direct Drive pan/tilt/zoom mechanism and autofocus lens with 25x optical zoom
- High quality full motion colour video - up to 25 fps at VGA resolution (640 x 480) thanks to M-JPEG picture compression
- PC card slot for onboard event storage or optional Wireless LAN
- Embedded web server and web page for simple set-up and control
- Day/night function switches to black & white mode in low light conditions for greater sensitivity
- Activity detection and automatic picture store/send for unattended operation



## SNC-CS3P

### Network Video Camera

- IP network colour video camera with auto iris vari-focal lens (focal length: 3.5 to 8.0 mm)
- 1/3 type CCD sensor with ExwaveHAD™ technology offers extremely high sensitivity of 0.5 lux at F1.0
- Full motion video - up to 25 fps at VGA resolution (640 x 480) thanks to M-JPEG picture compression
- Embedded IP server and web page for simple set-up and control
- Embedded activity detection and alarm trigger functions
- PAL composite video output for local analogue viewing or recording



## SNC-Z20P

### Network Video Camera

- IP network colour video camera with integrated 18x optical zoom lens for excellent resolution of fine detail
- 1/4 type CCD sensor with ExwaveHAD™ technology offers extremely high sensitivity: 0.7 lux in colour mode, 0.01 lx (F1.4, 50 IRE, Slow Shutter OFF) in B/W mode
- Power-over-Ethernet allows power to be supplied via the Ethernet CAT5 cable
- Added functionality via on-board PC card slot for onboard event storage or optional Wireless LAN for greater installation flexibility
- Day/night function switches to black & white mode in low light conditions for greater sensitivity
- PAL composite video output for local analogue viewing or recording



## SNC-RZ25P

### JPEG/MPEG-4 Network Video Pan-Tilt-Zoom Camera

- Precise, high-speed pan/tilt/zoom mechanism with integral 18x auto-focus zoom lens
- High quality and high sensitivity (0.7 lux, F1.4) with ExwaveHAD™ technology
- Day/Night function
- Added functionality provided through Compact Flash slot for image storage or Wireless LAN (IEEE802.11b) through optional Sony wireless LAN card (SNCA-CFW1) for greater installation flexibility
- Half duplex audio through built-in or external microphone input and audio line out
- Unattended operation thanks to built-in motion detection

## SNC-DF70P

### Day/Night Network Mini-Fixed Dome Camera

- JPEG/MPEG-4 network colour video camera integrated in IP66 compliant rugged aluminium cast housing and polycarbonate cover for protection against rain and vandalism
- Power-over-Ethernet allows power to be supplied via an Ethernet CAT5 cable
- Removable infrared filter delivers clear Black & White pictures at night or under IR illumination
- Multicasting capability supported and Adaptive Rate Control for stable image transmission
- Half duplex audio through built-in or external microphone input and audio line out
- Built-in motion vector activity detection permits unattended operation
- Analogue composite video output



## SNC-P5

### Network MPEG-4 Video Pan-Tilt Camera

- All-in-one JPEG/MPEG-4 network colour video camera with integrated Pan-Tilt control capability (Pan: -70 to +70 degrees / Tilt: -70 to 0 degrees and 3x optical zoom)
- Wireless transmission through optional Sony wireless LAN card (SNCA-CFW1)
- High quality image transmission even over limited bandwidth network connection (e.g. only 500 kbps needed for 25 images per second)
- 1/4 type, 330K pixels progressive scan CCD for superb picture detail
- Two-way audio communication enhances appeal for remote monitoring applications
- Smart motion detection permits unattended operation
- External sensor input, alarm output and E-mail alarm notification function



Product available beginning March 2005.

## SNC-DF40P

### Network Mini-Fixed Dome Camera

- JPEG/MPEG-4 network colour video camera with integral dome enclosure
- Built-in CS Mount auto iris vari-focal lens (f=3 to 8 mm from F1.0) for optimised coverage of any viewing area
- Multicasting capability supported and Adaptive Rate Control for stable image transmission
- Half duplex audio through built-in or external microphone input and audio line out
- Built-in motion vector activity detection permits unattended operation
- PAL composite video output for local analogue viewing or recording



## SNC-P1

### MPEG-4 Network Video Camera

- All-in-one JPEG/MPEG-4 network colour video camera with embedded IP server and web page for simple set-up and control
- High quality image transmission even over limited bandwidth network connection (e.g. only 500 kbps needed for 25 images per second)
- 1/4 type, 330K pixels progressive scan CCD for superb picture detail
- Two-way audio communication enhances appeal for remote monitoring applications
- Smart motion detection enables unattended operation
- External sensor input, alarm output and E-mail alarm notification function



## SNC-M1/M1W

### MPEG-4 Video Network Camera

- All-in-one JPEG/MPEG-4 network colour video camera with embedded IP server and web page for simple set-up and control
- Wireless LAN connection for easy installation (SNC-M1W only)
- Incorporates 1/4 type, 310k pixels (VGA) CMOS sensor
- Two-way audio transmission (built-in microphone, external microphone input and audio line output for active speakers)
- Sends email to specified address on alarm trigger
- Simple to install



## SNC-M3/M3W

### MPEG-4 Video Network Pan-Tilt Camera

- All-in-one JPEG/MPEG-4 network colour video camera with integrated Pan-Tilt control capability (Pan: -60 to +60 degrees / Tilt: +10 to -60 degrees)
- Wireless LAN connection for easy installation (SNC-M3W only)
- Incorporates 1/4 type, 310k pixels (VGA) CMOS sensor
- Two-way audio transmission (built-in microphone, external microphone input and audio line output for active speakers)
- Sends email to specified address on alarm trigger
- Simple to install



## SNT-V501/V504

### Video Network Station

- Converts four analogue video signals to M-JPEG digital format for IP transmission (single channel for SNT-V501)
- Simple integration of analogue video cameras into IP networks
- Onboard picture storage reduces network bandwidth overheads
- Supports wireless transmission (optional) for areas where cabled network coverage is difficult or non-existent
- Built-in activity detection enables unattended operation
- Can be used as a standalone event recorder
- High refresh rates provide full motion video (25 fps) at VGA resolution



SNT-V501



SNT-V504

## FSV-IPM1

### Network Video Recorder

- Scalable application server with 500 GB storage capacity- ideal for networked video recording
- Dual Ethernet ports (100/1000 Mbit/s)
- Allows onward distribution of video recordings using built-in DVD burner (DVD-ROM/-R/-RW/RAM CD-ROM/-R/-RW)
- Compact size, ultra-slim 1U rack mount
- Intel Pentium 4 Processor, 2.4 GHz CPU with 512 MB RAM
- WindowsXP™ Professional operating system pre-installed



## FSV-RSM9/FSV-RSM16

### 9-channel/16-channel Network Video Recorder

- Scalable, 'all-in-one' network video recording server with RealShot™ Manager pre-installed which manages/records up to 9 (FSV-RSM9) or 16 (FSV-RSM16) networked video sources
- Ideal for server-client architecture, allowing remote access to live and recorded pictures via network
- Unattended recording over long periods thanks to 500 GB storage capacity: e.g. 10 days recording for 9 cameras at 6 fps, 24hrs/day at CIF resolution
- Dual Ethernet ports (100/1000 Mbit/s)
- Compact size, ultra-slim 1U rack mount
- Allows onward distribution of video recordings using built-in DVD burner (DVD-ROM/+R/-RW /RAM CD-ROM/+R/-RW)



## RSM-AIC

### Stand-Alone Audio Network System

- Networked intercom system
- Ideal for monitoring building entrances or doorways by providing combined intercom and alarm functionality
- Integrates seamlessly with RealShot™ Manager for audio recording and monitoring
- 2 Inputs for control of other building functions (e.g. 'Talk' and 'Door' buttons)
- Audio input via on-board microphone or Line input
- Audio out through Headphone/Line Out



## FSVM51000W

### Network Application Server

- Ideal application server for hard drive space demanding applications such as video surveillance systems
- Ultra-slim 1U rack mount
- 1000 GB (4 x 250 GB) Hot-swappable hard drives
- Hardware RAID, user area RAID 0, 1 and 5, OS area RAID 0+1
- Intel Pentium 4 Processor, 2.4 GHz CPU with 512 MB RAM
- 24x CD-ROM drive
- Dual 10 BaseT/100 BaseTX/1000 BaseT Ethernet ports for uninterrupted performance in the event of one port failing
- Embedded SCSI interface for backup devices



## IMZ-RS Series

### RealShot Manager Monitoring and Control Software

- Management software to control, monitor and manage networked video installations on single or multiple sites
- Tailor made on-screen layouts offer intuitive, interactive representation of entire surveillance/monitoring system
- Full Server/Client support - optional Client software allows monitoring of unlimited number of sites and cameras while RSM web client allows monitoring from any PC on the network
- Extremely flexible video recording functionality, recording up to 350 fps
- Advanced search GUI makes it quick and easy to retrieve recordings
- I/O functionality to manage alarms, doors and other switch operated devices
- One year PrimeSupport telephone helpline





## SSC-DC50AP/SSC-DC54AP/SSC-DC58AP

### CCD Colour Video Camera

- 1/2 type IT CCD with ExwaveHAD technology offers extremely high sensitivity (0.8 lux at F1.2, 50 IRE) and low smear level (-120 dB)
- 470 lines of horizontal resolution
- Smart Control for fast backlight compensation
- ATW PRO/ATW/AWB/preset colour temperature settings - ATW PRO mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K)
- SSC-DC50AP supports single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W170P/W270P camera adaptor



SSC-DC50AP SSC-DC54AP SSC-DC58AP

## YS-W170P/YS-W270P

### Camera Adaptor

- Used with SSC-DC50AP
- Transmits DC power and video/sync signal between the adaptor and camera over a single coaxial cable
- Up to four cameras can be connected (one camera for YS-W170P)
- Internal or external synchronisation with MPX-VS or MPX-VD
- Maximum cable length: 600 m with RG-11A/U (7C-2V) coaxial cable



YS-W170P



YS-W270P

## SSC-DC593P/SSC-DC598P

### Day/Night Video Camera

- 1/3 type IT CCD offering 480 lines of horizontal resolution
- Wide dynamic range with DynaView technology - ideal for obtaining clear colour images under severe lighting conditions
- Day/Night mode - increases camera sensitivity allowing images to be viewed even in low light conditions
- White balance: ATW PRO/ATW/3200K/5600K/MANUAL/DUAL WB switchable - Dual white balance mode gives high quality colour reproduction of indoor and outdoor scenes under different colour temperatures
- Built-in activity detection and alarm trigger functions
- On-screen set up menu supports Privacy Zone Masking function and two preset memories for camera setting



SSC-DC593P

SSC-DC598P

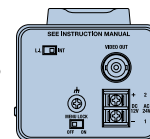
## SSC-DC573P/ SSC-DC578P

### Dynaview Colour Video Camera

- Extremely wide dynamic range with DynaView™ technology for clear images even with strong backlight
- 1/3 type CCD offering 480 TV lines and high sensitivity of 0.8 lux
- CCD IRIS function removes need for expensive automatic lens
- Auto Tracing White (ATW) function ensures consistent colour balance
- Turbo AGC function - boost gain to 24dB for better resolution of subject
- In-built activity detection/alarm
- Privacy zone masking
- Gamma correction for precise image setting



SSC-DC573P



SSC-DC578P



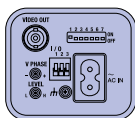
## SSC-E473P/SSC-E478P

### High Resolution Day/Night Camera

- Day/Night camera providing optimised sensitivity in both day and night shooting scenarios with near-infrared sensitivity in night-mode
- State-of-the-Art SuperExwave™ CCD technology achieving extremely high sensitivity levels - minimum illumination of 0.55 lux at F1.2 in colour mode and 0.05 lux at F1.2 in B/W mode.
- Newly-developed innovative DSP technology generating a horizontal resolution of 540 TV lines
- New slim and stylish design
- External Day/Night control input and Day/Night control output terminal
- Wide Auto Tracing White Range – ATW Pro & ATW



SSC-E473P



SSC-E478P

## SSC-DC372P/SSC-DC378P

### High Resolution Colour Camera

- 1/3 type IT CCD with SuperHAD technology offering 480 lines of horizontal resolution
- High sensitivity - 0.8 lux at F1.2 (50 IRE)
- Backlight compensation (ON/OFF switchable)
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000)
- CCD IRIS function allows for the use of low cost manual iris lenses
- Auto Tracing White Balance (ATW) and Turbo AGC (ON/OFF switchable)



SSC-DC372P



SSC-DC378P

## SSC-E453P/ SSC-E458P

### High Resolution Colour Camera

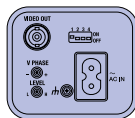
- State-of-the-Art SuperExwave™ CCD technology achieving extremely high sensitivity levels providing a minimum illumination of 0.55 lux at F1.2
- Newly-developed innovative DSP technology generating a horizontal resolution of 540 TV lines
- New slim and stylish design
- Wide Auto Tracing White Range – ATW Pro & ATW
- Backlight compensation and Turbo AGC: ON/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000s)



SSC-E453P



SSC-E458P



## SSC-DC198P

### Standard Resolution Colour Camera

- 1/3 type IT SuperHAD CCD offering 330 lines of horizontal resolution
- High sensitivity - 0.6 lux at F1.2 (50 IRE)
- Backlight compensation and ATW supported
- BLC and Turbo AGC (ON/OFF switchable)
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000s)
- AC 220-240 V power operation



## SSC-DC172P

### Standard Resolution Colour Camera

- Low cost standard resolution colour camera - 330 lines of horizontal resolution
- High sensitivity - 0.6 lux at F1.2 (50 IRE)
- Backlight compensation and ATW supported
- BLC and Turbo AGC: ON/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000s)
- DC 12V power operation



## SSC-M183CE/SSC-M188CE

### Black and White Camera

- 1/3 type IT SuperHAD CCD technology providing 380 lines of horizontal resolution
- High sensitivity - 0.06 lux at F1.2 (50 IRE)
- Backlight compensation (ON/OFF switchable)
- Turbo AGC (up to 24 dB): ON/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000)
- CCD IRIS function allows for the use of low cost manual iris lenses



SSC-M183CE



SSC-M188CE

## SSC-M383CE/ SSC-M388CE

### Black and White Camera

- 1/3 type IT CCD with ExwaveHAD technology providing extremely high sensitivity - 0.07 lux at F1.2 (50 IRE)
- 570 lines of horizontal resolution
- Backlight compensation (ON/OFF switchable)
- Turbo AGC (up to 24 dB): ON/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/50 to 1/100,000)
- CCD IRIS function allows for the use of low cost manual iris lenses



SSC-M383CE



SSC-M388CE



## SSC-CD73VP

### Day/Night Mini Fixed Dome Camera

- Rugged aluminum cast housing and polycarbonate cover
- 1/4 type IT SuperHAD CCD offering 480 lines of horizontal resolution
- Built-in CS Mount auto iris vari-focal lens (f=3 to 8 mm from F1.0)
- Day/Night function through removable IR filter to switch from colour to black and white mode with IR corrective lens for clear pictures under IR illumination
- High sensitivity of 0.9 lux (F1.0, 50 IRE, AGC ON) in colour and 0.2 lux (F1.0, 50 IRE, AGC ON) in B&W
- Rain-proof (IP66 compliant)

## SSC-CD43VP

### Colour Mini Fixed Dome Camera

- 1/4 type IT SuperHAD CCD offering 480 lines of horizontal resolution
- Built-in CS Mount auto iris vari-focal lens (f=3 to 8 mm from F1.0)
- High sensitivity of 0.9 lux (F1.0, 50 IRE, AGC ON)
- Turbo AGC (6 dB more gain than conventional gain): TURBO/NORMAL/OFF switchable
- Backlight compensation (ON/OFF switchable)
- ATW (2,200 to 10,000K)



## EVI-D100P

### Pan-Tilt-Zoom Colour Video Camera

- Easy set-up: no video or lens adjustment
- Pan, tilt & zoom functionality
- Quiet operation
- 40x zoom ratio
- Six position presets with battery back-up
- Auto sleep function



## HSR-X206P

### 6-channel Digital Surveillance Recorder

- Built-in 6 channel multiplexer function providing full frame rate monitoring per camera in multi-screen display
- High picture quality M-JPEG compression with large 320 GB storage capacity
- Built-in network interface
- Embedded Activity Detection
- Five advanced search methods
- Image downloading via CompactFlash slot



EVI-D70P



EVI-D70PW

## EVI-D70P/ EVI-D70PW

### Pan-Tilt-Zoom Colour/ Monochrome Video Camera

- 1/4 type IT Exview HAD CCD offering 460 lines of horizontal resolution
- High zoom ratio AF lens (18x optical + 12x digital zoom)
- Excellent low-light sensitivity (min. illumination less than 1 lux)
- Wide range pan/tilt (340° pan / 120° tilt)
- Desktop or ceiling mount installation using E-Flip function
- Full remote control support via RS-232C or RS-422
- Auto day/night function

## HSR-X209P/X216P

### Multi-channel Digital Surveillance Recorder

- Hard disk recorder with built-in multiplexing capability – up to 16 camera inputs (9 with HSR-X209P) can be recorded and monitored independently
- High resolution (more than 500 TV Lines) & high picture quality recording and playback
- Large-capacity 320 GB (2 x 160 GB) HDDs (ATA/ATAPI-5 Standard)
- High refresh rate of 50 fields per second
- Network capability through optional network card
- Intelligent search functions



HSR-X209P



HSR-X216P

## SVT-N24

### Time-Lapse Video Recorder

- 3, 12, 24 hour recording/playback modes (E-180)
- Compact size - only 240 mm (9 1/2 inches) wide
- Adaptive Picture Control (APC)
- Audio recording in 3, 12 or 24 hour modes
- Record check, alarm log, alarm scan capabilities



## SVT-RA96P

### Time-Lapse Video Recorder

- Sony 'RealAction' technology allows high density recording of 16.6 fields per second in 24-hour mode
- Maximum 96-hour time lapse recording mode is available with a 180-minute tape
- Adaptive Picture Control (APC)
- Audio recording in 6, 18, 30-hour modes (E-180) and in 8, 24, 40-hour modes (E-240)
- Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording and Series Recording
- Record check, alarm log and alarm scan capabilities



## SVT-N72P

### Time-Lapse Video Recorder

- 4 different time lapse recording/playback modes
- Adaptive Picture Control (APC)
- Fast forward and rewind: 100 seconds with an entire E-180 tape
- Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording and Series Recording
- Record check, alarm log and alarm scan capabilities
- Optional RS-232C/RS-485 interface



## HSR-DCT

### Video and Telemetry Virtual Control Panel

- Graphic, back-lit, 320 x 240 pixel touch panel display
- Allows customisation of up to 30 site maps
- Three-axis joystick allows simple manual Pan-Tilt-Zoom control
- Two independent RS-485 telemetry control ports to interface with the most common high speed domes
- Manufactured by Videotec S.R.L.
- For use with:
  - HSR-X209P
  - HSR-X216P
  - YS-DX516P



## SSM-20L1

### Colour Video Monitor

- 20-inch colour video monitor (viewable area, measured diagonally)
- Trinitron CRT provides a high resolution of 600 TV lines
- Beam current feedback circuit for stable colour reproduction
- Two selectable composite and Y/C inputs
- Colour temperatures can be selected from high, low or users' preset data (adjustable between 5,000K and 10,000K)
- Parallel remote control capability



## SSM-14L1

### Colour Video Monitor

- 14-inch colour video monitor (viewable area, measured diagonally)
- Trinitron CRT provides a high resolution of 600 TV lines
- Beam current feedback circuit for stable colour reproduction
- Two selectable composite and Y/C inputs
- Colour temperatures can be selected from high, low or users' preset data (adjustable between 5,000K and 10,000K)
- Parallel remote control capability



## UP-51MD

### Colour Video Printer

- A5 size print in approx. 22 seconds
- 2048 dots thermal head and high resolution of 300 dpi
- 8 bit (256 gradations) for each colour
- RGB, Y/C, and composite video inputs
- Wired and wireless remote controls with the optional RM-5500 remote control
- External control via RS-232C interface



## UP-21MD

### Colour Video Printer

- Resolution of 403 dpi for high picture quality
- Photo-quality prints with Sony dye sublimation printing technology
- A6 size colour print in approx. 17 seconds
- Compact design
- 2 or 4 split prints mode (four frame memories capability)
- Accepts and outputs an analogue RGB, S-Video (Y/C) or composite video signal

## UP-D23MD

### Digital Colour Printer

- Resolution of 403 dpi for high picture quality
- Photo-quality prints with Sony dye sublimation printing technology
- A6 size colour print in approximately 19 seconds
- Compact design
- USB interface (Version 2.0)
- Resize-to-fit feature allows users to enlarge images of VGA (640 x 480 dots), SVGA (800 x 600 dots) and XGA (1024 x 768 dots) to approximately 1,520 x 1,144 dots size image\* or approximately 2,000 x 1,520 dots size image\*\*



\* When using the UPC-21S print media

\*\* When using the UPC-21L print media

## UP-D895

### Digital Black & White Printer

- USB (version 1.0) and Parallel (IEEE1284) interfaces
- Resize-to-fit feature to enlarge images for printing
- Resolution of 325 dpi and 256 steps of grey level for high picture quality
- High-speed printing of approximately 3.8 seconds
- Multiple print modes available for a variety of applications
- Compact, space-saving design



## UP-960CE

### Black & White Video Graphic Printer

- Thermal video graphic printer with 256 steps of gray level
- Large print size - EIA standard (NTSC): 184 x 243 mm at side direction print mode, 190 x 144 mm at normal direction print mode; CCIR standard (PAL): 181 x 243 mm at side direction print mode, 190 x 142 mm at normal direction print mode
- High-speed printing of 12 seconds
- Multiple print modes; Standard, Side and 2-split (different images) print modes



## Network Video Cameras

	SNC-RZ30P	SNC-Z20P
<b>GENERAL</b>		
Mass	1.2 kg (2 lb. 10 oz.)	Approx. 800 g (2 lb. 10 oz.)
Dimensions (W x H x D)	140 x 175 x 144 mm (5 5/8" x 7" x 5 3/4")	80 x 77 x 177 mm (5 5/8" x 3" x 7")
Power requirements	DC 12 V via AC adaptor (100 to 240 V)	DC 24 V AC 50/60 Hz, 12 V DC, PoE
Power consumption	21.6 W	9 W max.
Operating temperature	0 °C to +40 °C (32 °F to 104 °F)	0 °C to +40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to 140 °F)	-20 °C to +60 °C (-4 °F to 140 °F)
Operating humidity	20% to 80% Non-condensing	20% to 80% Non-condensing
Storage humidity	20% to 95% Non-condensing	20% to 95% Non-condensing
<b>IMAGE DATA</b>		
Compression	M-JPEG	M-JPEG
Compression ratio	1/5 ~ 1/60 (10 steps)	1/5 ~ 1/60 (10 steps)
Image Resolution	736 x 544 (Auto), 736 x 544 (Frame), 736 x 544 (Field), 640 x 480 (Auto), 640 x 480 (Frame), 640 x 480 (Field), 320 x 240, 160 x 120	736 x 544 (Auto), 736 x 544 (Frame), 736 x 544 (Field), 640 x 480 (Auto), 640 x 480 (Frame), 640 x 480 (Field), 320 x 240, 160 x 120
Frame rate	Max. 25 fps (640 x 480)	Max. 25 fps (640 x 480)
<b>CAMERA</b>		
Imager	1/6 type Interline Transfer SuperHAD CCD	1/4 type ExwaveHAD CCD
Pixels	800,000	440,000
Electronic shutter	1/3 to 1/10,000 sec	Auto/Manual (1 to 1/10,000 sec)
Exposure	Auto (Full Auto (including backlight compensation), Shutter-priority, Iris-priority) and manual	Auto, Shutter-priority, Iris-priority, Manual (Backlight compensation is switchable except in Manual mode)
White balance	Auto, ATW, Indoor, Outdoor, One-push (trigger command), Manual	Auto, Indoor, Outdoor, One Push White Balance, ATW, Manual
EV Compensation	-1.75 to +1.75 (15 steps)	-
Iris	Auto/Manual (F1.6 to close)	Auto/Manual (F1.4 to Close)
Gain	Auto/Manual (-3 dB to 28 dB)	Auto/Manual (-3 dB to 28 dB)
Focus mode	Auto/Manual (Near, Far, One-push Auto Focus)	Auto/Manual (Near, Far, One Push Auto Focus)
<b>LENS</b>		
Zoom Ratio	25 x optical zoom, 300 x with digital zoom	x 18 (infinite)
Horizontal viewing angle	2.0° to 45°	2.7° to 48°
Focal length	f = 2.4 mm to 60 mm	f = 4.1 mm to 73.8 mm
F-number	F1.6 (Wide), F2.7 (Tele)	F1.4 (Wide), F3.0 (Tele)
Minimum object distance	Tele: 800 mm, Wide: 30 mm	Tele: 800 mm, Wide: 10 mm (factory preset is 290 mm)
<b>PAN/TILT</b>		
Pan angle	-170° to +170°	-
Pan speed	2 sec./340°	-
Tilt angle	-25° to +90°	-
Tilt speed	1.5 sec./115°	-
<b>INTERFACES</b>		
Ethernet	10 Base-T / 100 Base-Tx (RJ-45)	10 Base-T/100 Base-TX (RJ-45)
PCMCIA	Type II x 2	Type II x1
Sensor and I/O	Sensor input x 3, Sensor output x 2	Sensor input: make contact (photo coupler input electrically isolated from the camera) Alarm output 1 and 2: 24 V DC or less, 1 A (mechanical relay outputs electrically isolated from the camera)
Video Output	Analogue composite (BNC x 1)	VIDEO OUT: BNC, 1.0 Vp-p, 75 Ω unbalanced, sync negative
Serial I/F	RS-232C/RS-485 transparent port	RS-232C transparent port
<b>ANALOGUE VIDEO OUTPUT</b>		
Signal system	PAL	PAL
Sync system	Internal	Internal
Horizontal resolution	480 TV lines	460 TV lines
S/N ratio	Better than 48 dB	50 dB
Minimum illumination	Colour: 3 lux at F1.6 (50 IRE), B&W: 0.18 lux at F1.6 (50 IRE)	Colour: 0.7 lux or less (AE mode, slow shutter off) B&W: 0.01 lux (F1.4, 50IRE, Slow shutter OFF)
<b>SYSTEM/NETWORK</b>		
CPU	32 bit RISC Embedded processor	32-bit RISC processor
Embedded flash memory	32 MB (includes 8 MB alarm buffer)	8 MB
RAM	32 MB (includes 8 MB alarm buffer)	32 MB (incl. built-in image memory of about 8 MB)
Browser	MS Internet Explorer v 5.5 and 6.0 (Windows98/ME/NT4.0/2000)	MS Internet Explorer v 5.5 and 6.0 (Windows98/98SE/ME/NT4.0/2000/XP) Pocket PC Internet Explorer (Pocket PC 2002)
Security	IP-filtering, Password protection	IP-filtering, Password protection
Protocols supported	TCP/IP, HTTP, ARP, ICMP, DHCP, FTP, SMTP and SNMP (Standard MIB)	TCP/IP, HTTP, ARP, ICMP, DHCP, FTP, DHC, NTP and SNMP (MIB-2)
Supplied accessories	Ceiling mount kit, AC power adaptor, AC power cable, CD-Rom (Set up programme and User's guide), I/O receptacle, Installation manual, Ferrite core	CD-ROM (setup program and User guide), Wire rope, Shoulder screw M4, Installation Manual
Optional accessories	MSA-64A Memory Stick (64 MB) MSAC-PC2 Memory Stick/PC Card Adaptor	Memory Stick MSA-128 A (128 MB) Memory Stick PC card adaptor MSAC-PC3 Wide conversation lens VCL-0637H

## Network Video Cameras

	SNC-CS3P
<b>GENERAL</b>	
Mass	Approx. 650 g (1 lb. 7 oz.)
Dimensions (W x H x D)	57 x 70 x 159 mm (2 1/4" x 2 3/4" x 6 1/4")
Power requirements	AC 24 V / DC 12 V
Power consumption	7 W max.
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)
Storage temperature	-40 °C to +60 °C (-40 °F to 140 °F)
Operating humidity	20% to 80%, Non-condensing
Storage humidity	20% to 95%, Non-condensing
<b>IMAGE DATA</b>	
Compression	M-JPEG
Compression ratio	1/5 ~ 1/60 (10 steps)
Image Resolution	736 x 544 (Auto), 736 x 544 (Frame), 736 x 544 (Field), 640 x 480 (Auto), 640 x 480 (Frame), 640 x 480 (Field), 320 x 240, 160 x 120
Frame rate	Max. 25 fps (640 x 480)
<b>CAMERA</b>	
Imager	1/3 type ExwaveHAD CCD
Pixels	440,000 (752 x 582)
Electronic shutter	1/50 to 1/100,000 sec
Exposure	BLC
White balance	ATW
EV Compensation	-
Iris	Auto
Gain	AGC
Focus mode	-
<b>LENS</b>	
Zoom Ratio	-
Horizontal viewing angle	W 73.9° x 56.3° T 33.8° x 25.8°
Focal length	Vari-focal (focal length: 3.5 to 8.0 mm)
F-number	F1.0
Minimum object distance	500 mm
<b>PAN/TILT</b>	
Pan angle	-
Pan speed	-
Tilt angle	-
Tilt speed	-
<b>INTERFACES</b>	
Ethernet	10 Base-T/100 Base-TX (RJ-45)
PCMCIA	-
Sensor and I/O	Sensor input: make contact (photo coupler input electrically isolated from the camera) Alarm output 1 and 2: 24 V DC or less, 1 A (mechanical relay outputs electrically isolated from the camera)
Video Output	VIDEO OUT: BNC, 1.0 Vp-p, 75 Ω unbalanced, sync negative
Serial I/F	RS-232C transparent port
<b>ANALOGUE VIDEO OUTPUT</b>	
Signal system	PAL
Sync system	Internal
Horizontal resolution	480 TV lines
S/N ratio	More than 50 dB
Minimum illumination	0.5 lux at F1.0
<b>SYSTEM/NETWORK</b>	
CPU	32-bit RISC processor
Embedded flash memory	8 MB
RAM	32 MB (incl. the built-in image memory of about 8 MB)
Browser	MS Internet Explorer v 5.5 and 6.0 (Windows98/98SE/ME/NT4.0/2000/XP) Pocket PC Internet Explorer (Pocket PC 2002)
Security	IP-filtering, Password protection
Protocols supported	TCP/IP, HTTP, ARP, ICMP, DHCP, FTP, DHC, NTP and SNMP (MIB-2)
Supplied accessories	CD-ROM (setup program and User guide),
Optional accessories	-



## Network Video Cameras

SNC-DF70P		SNC-DF40P	
<b>CAMERA</b>			
Image device	1/4-type SuperHAD CCD		
Number of effective pixels	752 x 582 (H x V)		
Electronic shutter	1/50 to 1/10000 s		
Gain control	Auto:ON/OFF switchable (up to 18 dB)		
Exposure control	Auto, Back-Light-Compensation(BLC)		
White balance mode	ATW		
Lens mount	CS mount		
Lens type	x2.7 Vari-focal auto iris lens		
Horizontal viewing angle	66.6 to 26.9 degrees		
Focal length	f=3.0 to 8.0 mm		
F number	F=1.0		
Iris	CCD iris		
Minimum object distance	200 mm		
Other functions	Motion detection	Motion detection	
	Day/Night function		
<b>IMAGE</b>			
Image size (H x V)	640 x 480, 480 x 360, 384 x 288, 320 x 240, 256 x 192, 160 x 120		
Compression format	MPEG-4/JPEG selectable		
Maximum frame rate (MPEG-4 mode)	Max. 25 fps (320 x 240)		
(JPEG mode)	Max. 25 fps (320 x 240)		
<b>AUDIO</b>			
Compression format	G.711 (64 Kbps) / G.726 (40, 32, 24, 16 Kbps)		
<b>NETWORK</b>			
Protocols	TCP/IP, UDP, RTP, RTCP, ARP, ICMP, DHCP, DNS, HTTP, FTP, SMTP		
Number of clients	JPEG: 20 users, MPEG-4: 10 users		
<b>INTERFACE</b>			
Ethernet	100Base-TX/10Base-T (RJ-45)		
Analogue video output	Composite video (1.0 Vp-p)		
Monitor output	2-Pin connector		
I/O port	Sensor in (1), Alarm out (2)		
External microphone input	Mini-jack, 2.4 VDC plug-in power, 4.7 kΩ		
Audio line output	Mini-jack (Monoaural), max output level: 1 Vrms		
<b>ANALOGUE VIDEO OUTPUT</b>			
Signal system	PAL (Composite)		
Horizontal resolution	480 TV lines		
S/N ratio	50 dB		
Minimum illumination (Colour)	0.9 lx (AGC On, F1.0, 50IRE)	0.8 lx (AGC On, F1.0, 50IRE)	
(Black and White)	0.2 lx (AGC On, F1.0)	-	
<b>GENERAL</b>			
Mass Approx.	Approx. 1,500 g (3 lb 5 oz)		750 g (1 lb 10 oz)
Dimensions (W x H x D)	165 x 135 x 166 mm (6 1/2 x 5 3/8 x 6 5/8 inches) without projection ports		124 x 132 x 126 mm (5 x 5 1/4 x 5 inches) without projection ports
Power requirements	AC24 V 50/60 Hz, DC12 V, POE		
Power consumption	8 W		7.5 W
Operating temperature	-10 to +50 °C (14 to 122 °F)		
Storage temperature	-20 to +60 °C (-4 to +140 °F)		
Operating humidity	20 to 80%, non-condensing		
Storage humidity	20 to 95%, non-condensing		
<b>SUPPLIED ACCESSORIES</b>			
	CD-ROM (setup program, users guide), Monitor cables (2), AC power code, Wire rope, Screws (2), Installation manual	CD-ROM (setup program, users guide), Monitor cables (2), AC power code, Wire rope, Screws (2), Dome cover screw, Installation manual	
<b>SYSTEM REQUIREMENTS</b>			
Operating system	Microsoft® Windows® 2000/XP		
Processor	Intel® Pentium® III, 1 GHz or higher (Recommendation: Pentium IV, 2GHz or higher)		
Memory	256 MB RAM minimum		
Web browser	Microsoft Internet Explorer® version 5.5 or 6.0		

## Network Video Cameras

SNC-P1	
<b>GENERAL</b>	
Image device	1/4-type progressive scan CCD
Number of effective pixels	659 x 494 (H x V)
Electronic shutter	1 to 1/10000 s
Slow shutter	1, 1/2, 1/4, 1/8, 1/15, 1/30 s (On/Off selectable)
Exposure mode	Auto, Shutter priority, Manual
White balance	Auto, Indoor, Outdoor, One-push, Manual
Gain	0, 6, 12, 18 dB
Minimum illumination	3.0 lx
<b>LENS</b>	
Type	Fixed focal lens
Focal length	f=3.8 mm
Viewing angle	Horizontal: 53.4°, Vertical: 40.0°
F-number	F2.0
Minimum object distance	50 cm
<b>SYSTEM/NETWORK</b>	
Compression format	MPEG-4/JPEG selectable
Image size (H x V)	MPEG-4 mode
	640 x 480, 480 x 360, 384 x 288, 320 x 240, 256 x 192, 160 x 120
JPEG mode	640 x 480, 480 x 360, 384 x 288, 320 x 240, 256 x 192, 160 x 120
Maximum frame rate	MPEG-4 mode
	Max. 30 fps, 320 x 240, Max. 15 fps, 640 x 480
JPEG mode	Max. 30 fps, 320 x 240, Max. 18 fps, 640 x 480
Audio compression	G.711 (64 Kbps)/G.726 (40, 32, 24, 16 Kbps)
Number of clients	MPEG-4 mode
	10 clients
JPEG mode	20 clients
Protocols	TCP/IP, UDP, RTP, RTCP, ARP, ICMP, HTTP, FTP, SMTP, DHCP, DNS, NTP and PPPoE, SNMP
<b>INTERFACES</b>	
Ethernet	100Base-TX/10Base-T (RJ-45)
Video output	Mini-jack
Built-in microphone	Electret condenser microphone
External microphone input	Mini-jack, Plug-in power, 2.2 K ohm, Unbalanced
Line output	Mini-jack
Sensor in	1
Alarm out	1
<b>GENERAL</b>	
Mass	Approx. 225 g (8 oz)
Dimensions (W x H x D)	99.5 x 35 x 138.5 mm (4 x 1 7/16 x 5 1/2 inches) without projection
Power requirements	DC 12 V
Power consumption	3.5 W
Operating temperature	0 to +35 °C (32 to 95 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)
Operating humidity	20 to 80%, non-condensing
Storage humidity	20 to 95%, non-condensing
Supplied accessories	AC adaptor (x1) CD-ROM (x1, setup program and user guide) Stand (x1)

## Network Video Cameras

	SNC-M1	SNC-M1W
<b>CAMERA</b>		
Image device	1/4-type CMOS	
Number of effective pixels (H x V)	652 x 482	
Pan range	-	-
Tilt range	-	-
Lens type	Fixed focal lens	
Focal length	f=3.7 mm	
Viewing angle	Horizontal: 51.0°, Vertical: 38.9°	
Minimum object distance	80 cm	
<b>VIDEO</b>		
Compression format	MPEG-4, JPEG	
Image size (H x V)		
MPEG-4 mode	640 x 480, 320 x 240, 160 x 120	
JPEG mode	640 x 480, 320 x 240, 160 x 120	
Maximum frame rate		
MPEG-4 mode	Max. 30 fps (320 x 240)	
JPEG mode	Max. 30 fps (320 x 240)	
<b>AUDIO</b>		
Audio compression	G.726 (40, 32, 24, 16 Kbps)	
Built-in microphone	Electret condenser microphone	
<b>NETWORK</b>		
Protocols	TCP/IP, ARP, ICMP, DHCP, DNS, HTTP, FTP, SMTP, NTP	
<b>WIRELESS LAN</b>		
Standard	-	IEEE802.11b (2.4 GHz)
Transmission speed	-	11Mbps/5.5Mbps/2Mbps/ 1Mbps (Auto Switch)
Security	-	WEP (64/128 bits)
<b>INTERFACES</b>		
Ethernet	100Base-TX/10Base-T (RJ-45)	
External microphone input	Mini-jack, 2.4 VDC plug-in power, 2.2 k ohm	
Audio line output	Mini-jack	
<b>GENERAL</b>		
Mass	Approx. 230 g (8 oz)	Approx. 240 g (8 oz)
Dimensions (Dia. x H)	110 x 68.5 mm (4 3/8 x 2 3/4 inches) (excludes projection port)	
Power requirements	DC 5 V	
Power consumption	2.7 W	3.5 W
Operating temperature	0 to +40 °C (32 to 104 °F)	
Storage temperature	-20 to +60 °C (-4 to +140 °F)	
Operating humidity	20 to 80%, non-condensing	
Storage humidity	20 to 95%, non-condensing	
<b>SUPPLIED ACCESSORIES</b>		
	AC adaptor Stand Wire Rubber foot CD-ROM (users guide, supplied program) Installation manual	AC adaptor Stand Wire Wall-mount bracket Rubber foot CD-ROM (users guide, supplied program) Installation manual
<b>SYSTEM REQUIREMENTS</b>		
Operating system	Microsoft® Windows® 2000/XP	
Processor	Intel® Pentium® III, 1 GHz or higher (Recommendation: Pentium IV, 2GHz or higher)	
Memory	256 MB RAM minimum	
Web browser	Microsoft Internet Explorer® version 5.5 or 6.0	

## Network Video Cameras

	SNC-M3	SNC-M3W
<b>CAMERA</b>		
Image device	1/4-type CMOS	
Number of effective pixels (H x V)	652 x 482	
Pan range	-	+ 60 to -60 degrees
Tilt range	-	+ 10 to -60 degrees
Lens type	Fixed focal lens	
Focal length	f=3.7 mm	
Viewing angle	Horizontal: 51.0°, Vertical: 38.9°	
Minimum object distance	80 cm	
<b>VIDEO</b>		
Compression format	MPEG-4, JPEG	
Image size (H x V)		
MPEG-4 mode	640 x 480, 320 x 240, 160 x 120	
JPEG mode	640 x 480, 320 x 240, 160 x 120	
Maximum frame rate		
MPEG-4 mode	Max. 30 fps (320 x 240)	
JPEG mode	Max. 30 fps (320 x 240)	
<b>AUDIO</b>		
Audio compression	G.726 (40, 32, 24, 16 Kbps)	
Built-in microphone	Electret condenser microphone	
<b>NETWORK</b>		
Protocols	TCP/IP, ARP, ICMP, DHCP, DNS, HTTP, FTP, SMTP, NTP	
<b>WIRELESS LAN</b>		
Standard	-	IEEE802.11b (2.4 GHz)
Transmission speed	-	11Mbps/5.5Mbps/2Mbps/ 1Mbps (Auto Switch)
Security	-	WEP (64/128 bits)
<b>INTERFACES</b>		
Ethernet	100Base-TX/10Base-T (RJ-45)	
External microphone input	Mini-jack, 2.4 VDC plug-in power, 2.2 k ohm	
Audio line output	Mini-jack	
<b>GENERAL</b>		
Mass	Approx. 380 g (13 oz)	Approx. 390 g (14 oz)
Dimensions (Dia. x H)	110 x 104 mm (4 3/8 x 4 1/8 inches) (excludes projection port)	
Power requirements	DC 5 V	
Power consumption	6.7 W	7.5 W
Operating temperature	0 to +40 °C (32 to 104 °F)	
Storage temperature	-20 to +60 °C (-4 to +140 °F)	
Operating humidity	20 to 80%, non-condensing	
Storage humidity	20 to 95%, non-condensing	
<b>SUPPLIED ACCESSORIES</b>		
	AC adaptor Stand Wire Rubber foot CD-ROM (users guide, supplied program) Installation manual	AC adaptor Stand Wire Wall-mount bracket Rubber foot CD-ROM (users guide, supplied program) Installation manual
<b>SYSTEM REQUIREMENTS</b>		
Operating system	Microsoft® Windows® 2000/XP	
Processor	Intel® Pentium® III, 1 GHz or higher (Recommendation: Pentium IV, 2GHz or higher)	
Memory	256 MB RAM minimum	
Web browser	Microsoft Internet Explorer® version 5.5 or 6.0	

## Network Video Recorders and Servers

SNT-V501		SNT-V504	
<b>ANALOGUE VIDEO INTERFACE</b>			
Video input	(1) Analogue composite (BNC x 1), 1.0 Vp-p, 75 Ω, unbalanced, sync negative Auto sensing	(4) Analogue composite (BNC x 1), 1.0 Vp-p, 75 Ω, unbalanced, sync negative Auto sensing	
Video output	Through video output: Analogue composite (BNC x 1), 1.0 Vp-p, 75 Ω, unbalanced, sync negative	Analogue composite (BNC x 1), 1.0 Vp-p, 75 Ω, unbalanced, sync negative (QUAD/Single selectable)	
System/Network	CPU 32-bit RISC processor RAM 32 MB (including 8 MB alarm buffer)		
Flash memory	8 MB		
Image size	704 x 480, 640 x 480, 320 x 240, 160 x 120 pixels		
Compression method	JPEG		
Compression ratio	Approx. 1/5 to 1/60 (10 steps) *The compression ratio is based on an image of 24 bits/picture element (8 bits for each R, G and B)		
Frame rate	Max. 30 fps (640 x 480)	Max. 30 fps (640 x 480), 30 fps (320 x 240) per video input	
Protocols	TCP/IP, ARP, ICMP, HTTP, FTP (server/client), SMTP, DHCP, DNS, NTP, SNMP (MIB-2)		
Number of clients	Max. 50		
<b>INTERFACES</b>			
Ethernet	100BASE-TX / 10BASE-T (RJ-45)		
Sensor input	(1) 3.3 to 24 V DC device supported, photo coupler inputs electrically isolated from this unit	(4) 3.3 to 24 V DC device supported, photo coupler inputs electrically isolated from this unit	
Alarm output	(2) 24 V DC or less, 1 A, mechanical relay outputs electrically isolated from the camera		
Serial interface	RS-485/RS-232C (for camera control or transparency function)		
PC card slot	PCMCIA Type II (1)		
<b>GENERAL</b>			
Mass	Approx. 650 g (1 lb 7 oz)	Approx. 710 g (1 lb 9 oz)	
Dimensions (W/H/D)	128 x 40 x 150 mm (5 1/8 x 1 5/8 x 6 inches) excluding protruding parts		
Power requirement	DC 12 V or AC 24 V		
Power consumption	10.0 W max.	14.0 W max.	
Operating temperature	-10 to 50 °C (14 °F to 122 °F) When PC card is attached: -10 to 40 °C (14 to 104 °F)		
Storage temperature	-20 to 60 °C (-4 to 140 °F)		
Operating humidity	20 to 80 %, Non-condensing		
Storage humidity	20 to 95 %, Non-condensing		
Supplied accessories	CD-ROM (setup program and User's Guide) (1), I/O receptacle (1), Installation manual (1)		

## Network Video Recorders and Servers

FSV-RSM9/FSV-RSM16	
<b>SYSTEM</b>	
Chipset	ServerWorks GC-SL+CSB6
CPU	Intel Pentium 4, 2.4GHz/533MHz front-side bus
Memory	512 MB PC-2100 DDR266 CL2 with ECC registered
OS	Windows XP Professional
Pre-installed software <sup>1</sup>	RealShot Manager version 2.0, RealShot Manager License File <sup>1</sup> Installed or bundled at configuration center
<b>INTERFACES</b>	
Serial	RS-232C, 9-pin x1
Keyboard, Mouse	PS/2 x 2
USB 1.1	Front x 2, Rear x 1
Graphic	VGA(15-pin) x 1
LAN	RJ-45 x 2(10/100 x 1, 10/100/1000 x 1)
<b>ONBOARD CONTROLLER</b>	
IDE	ATA100
RAID	2-channel IDE RAID 0, 1 SPAN
Graphic	ATI Range XL, SMB VRAM
<b>HDD</b>	
Capacity	500 GB (250 GB x 2)
<b>DISC BAYS</b>	
HDD	3.5 inch x 2
FDD Drive	3.5 inch x 1
<b>GENERAL</b>	
Operating temperature	10°C to 35°C (50°F to 95°F)
Operating humidity	20% to 80%
Dimensions(WxHxD)	430 x 43 x 400 mm(17 x 1 3/4 x 15 3/4 inches)
Mass	approx. 8.0 kg(17lb 10oz)
Rated voltage	100-127, 220-240 V
Rated current	100 to 127V: 5.5 A, 200 to 240 V: 2.75 A
Power consumption	200 W
Frequency	50/60 Hz
Supplied accessories	Rack mounting kit(1), Ethernet cable(1), FSV-IPM1 System Utility CD-ROM, Windows XP Professional Installation CD, RealShot Manager 2.0 CD, RealShot Manager License FD, FSV-IPM1 Installation Guide, Rubber foot(4)
<b>SAFETY STANDARD/EMC INFORMATION</b>	
Safety standard	CSA C22.2 No.60950 3rd /UL 60950 3rd IEC 60950 3rd EN 60950 3rd Low voltage directive
EMC	FCC47 CFR Part 15 Class A IC ICES-003 Class A EMC Directive 89/336/EEC EN55022 Class A, EN55024 VCCI Class A JEITA
<b>FSVM51000W</b>	
Main Function	Application Server
System Specifications	1000 GB (4x hot-swappable 250 GB Ultra ATA-100 drives)
CPU	Intel Pentium 4, 2.4 GHz processor
Memory	512 MB RAM STD (up to 4GB RAM optional)
Memory Slots	DIMM x 4 sockets
Hard Disk Capacity	1000 GB (250 GB x 4) Hot-swappable
HDD Interface	ATA (IDE)
HDD Raid Level	Hardware RAID : RAID 0,1,5 (O/S : 0+1)
User Area Capacity (GB)	480 GB (RAID 5), 320 GB (RAID 1), 640 GB (RAID 0)
Operating System	Windows 2000 Server preinstalled (incl. 5 CAL)
System Management	Recovery CDs
Network Transport Protocol	TCP/IP
Network File Protocols	N/A
Network Client Types	N/A
Supported Languages	Dutch, English, French, German, Italian, Japanese, Korean, Spanish, Swedish, Chinese (simplified), Chinese (traditional)
Network Connection	Dual auto-sensing 10 BaseT/100 BaseTX/1000 BaseT with fail-over and load balancing (RJ-45 connectors)
Network Security	N/A
Interface outside	Interface front : USB 2.0 x 2 Interface rear : RS-232C x 1 (D-sub 9pin) PS/2 x 2 (Keyboard, Mouse) VGA Monitor SCSI (68 pin, VHDCI) Ethernet Network (RJ-45) x 2 AC – Power in
Interface inside	PCI expansion slot x 2 (short card size x 2), mini PCI for SCSI x 1 for tape device
Windows Network Integration	N/A
Form Factor	19" rack-mountable (1U height)
Operating Environment	Temperature: 10 to 35 °C
CD-ROM	Slim 24x CDROM
Front Display	LCD : 12 x2 character type LCD
Rated Voltage	AC 100-240 V, 50/60 Hz
Rated Current	6A
Dimensions (W x H x D)	440 x 43.5 x 612 mm
Weight	14 kg (31lb.)
Operating Relative Humidity	20 - 80 % (non-condensing)
Safety Requirements	EU TUV-GS Mark
Accessories	Hot Swappable HDD (250 GB)

## Video Cameras

	SSC-DC50AP	SSC-DC54AP	SSC-DC58AP
Pickup device		1/2 type Interline Transfer CCD	
Picture Elements (H x V)		752 x 582	
Lens mount		C and CS adj.	
Signal system/scanning system		PAL 625/2:1	
Colour mode	AWB/ATW/ATW PRO/PRESET 5,600 °K	AWB/ATW/ATW PRO/PRESET 5,600 °K	ATW PRO/ATW/AWB/PRESET 5,600 °K
Sync system		Internal/External	
External sync	VS and VBS/MPX VS	AC Line Lock, VS and VBS	AC Line Lock, VS and VBS
V-Phase control	No	±90°	±90°
H-Phase control		Yes	
Horizontal resolution		470 TV lines	
S/N Ratio (AGC OFF, Weight ON)		Better than 50 dB	
Min. illumination (Turbo AGC ON)		0.4 lux at F1.2 (30 IRE)	0.8 lux at F1.2 (50 IRE)
Video output		Composite, BNC (1) Y/C, Mini-Din (1)	
Operating temperature		-10 to 50 °C (14 to 122 °F)	
Storage temperature		-40 to 60 °C (-40 to 140 °F)	
Power requirements	1) Multiplexing with YS-W170P/W270P 2) DC 12 V power supply	AC 24 V, 50 Hz	AC 220 to 240 V, 50 Hz
Power consumption	1) 5.5 W supplied from YS-W170P/W270P 2) 4.5 W at DC 12 V	6.0 W	5.5 W
Mass	600 g (1 lb. 5 oz.)	600 g (1 lb. 5 oz.)	900 g (2 lb.)
Dimensions (W x H x D)	64 x 57 x 137 mm (2 1/2" x 2 1/4" x 5 3/8")	64 x 57 x 137 mm (2 1/2" x 2 1/4" x 5 3/8")	64 x 57 x 162 mm (2 1/2" x 2 1/4" x 6 1/8")
Supplied accessories		Lens connector (x1) Lens mount cap (x1) Operation manual (x1)	

## Camera Adaptors

	YS-W270P	YS-W170P
Video output	BNC (8), composite video	BNC (2), composite video
Video input	Camera In, BNC (4)	Camera In, BNC (1)
External sync		VS or VD-W
Internal sync		VS or VD-W
Max. cable length		300 m using RG-59B/U 500 m using RG-6A/U 600 m using RG-11A/U
Cable compensation		3-Position
Power requirement		AC 220 to 240 V, 50 Hz
Power consumption	49.5 W	15 W
Operating temp.		-10 to 50 °C (14 to 104 °F)
Mass	3.6 kg (7 lb. 15 oz.)	1.9 kg (4 lb. 3 oz.)
Dimensions (W x H x D)	424 x 52 x 345 mm (16 3/4" x 2 1/8" x 13 5/8")	212 x 52 x 345 mm (8 3/8" x 2 1/8" x 13 5/8")

## Video Cameras

	SSC-DC593P	SSC-DC598P
Image device		1/3 type Interline Transfer CCD with DynaView technology
Picture elements (H x V)		752 x 582
Sensing area		1/3 type format (4.8 x 3.6 mm)
Signal system		PAL
Sync. System		Internal/External
Horizontal resolution		480 TV lines
Lens mount		CS
Minimum illumination		Colour: 0.8 lux at F1.4 (50 IRE) B/W: 0.07 lux at F1.4 (50 IRE)
AGC		OFF/MANUAL/NORMAL/TURBO selectable
Shutter		1/60 (1/50) to 1/10000 (8steps) OFF/MANUAL/CCD IRIS selectable
White Balance (WB)		ATW PRO/ATW/3200K/5600K/MANUAL/DUAL WB
Backlight Compensation (BLC)		DYNAVIEW/SPOT/WEIGHT/OFF switchable
Day/Night mode		COLOUR/AUTO/EXTERNAL/B&W
Activity detection		ON / OFF switchable
Zone masking		ON / OFF switchable (with Area setting function)
Variable Gamma		OFF / SCENE1 / SCENE2 / SCENE3 / SCENE4 selectable
Camera Title		Up to 24 characters ON / OFF switchable
S/N ratio		More than 50 dB (AGC OFF, Weight ON)
Video out		1.0 Vp-p, BNC (1)
Remote Control		RS-485
Operating temperature		-10 to 50 °C (-40 to 122 °F)
Storage temperature		-40 to 60 °C (-40 to 140 °F)
Power requirements	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 V to 240 V ±10%, 50 Hz
Power consumption	5.8 W	5.6 W
Mass		500 g (1 lb. 2 oz.)
Auto iris lens		DC/video servo switchable
Dimensions (W x H x D)		70 x 57 x 129 mm (2 7/8" x 2 1/8" x 5 1/8")
Supplied accessories	Lens mount cap (x1) Menu operations (x1) Operation manual (x1)	Lens mount cap (x1) Menu operations (x1) Operation manual (x1) AC power cable (x1)

## Video Cameras

	SSC-DC573P	SSC-DC578P
Image device	1/3 type CCD	
Picture elements (H x V)	752 x 582	
Sensing area	1/3 type format (4.8 x 3.6 mm)	
Signal system	PAL standard	
Sync system	INT/Line Lock	
Horizontal resolution	480 TV lines	
Lens mount	CS	
Minimum illumination	0.8 lx at F1.4 (50 IRE, AGC ON)	
AGC	NORMAL/TURBO/MANUAL/OFF selectable	
CCD IRIS	ON/OFF switchable, 1/50 to 1/100,000 s	
Electric shutter	1/50 to 1/10,000 s, 8 steps	
White Balance (WB)	ATW-PRO/ATW/3200K/5600K/MANUAL/DUAL WB selectable	
Back-Light Compensation (BLC)	DYNVIEW/SPOT/WEIGHT/OFF selectable	
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)	
Dynamic range	52 dB	
Variable Gamma Curve	Scene 1/Scene 2/Scenc 3/Scene 4/Off selectable	
Aperture	Soft/Normal/Sharp selectable	
Camera title	Up to 24 characters	
User preset	Two presets	
Video out	BNC, 1.0 Vp-p, 75 Ω, sync negative	
Operating temperature	-10 °C to 50 °C (14 °F to 122 °F)	
Storage temperature	-40 °C to 60 °C (-40 °F to 140 °F)	
Power requirements	AC 24 V ±10 %, 50 Hz or DC 12 V ±10 %	AC 220 to 240 V ±10 %, 50 Hz
Power consumption	4 W	
Auto iris lens	DC/Video Servo switchable	
Mass	480 g (1 lb 1 oz)	
Dimensions (W x H x D)	70 x 57 x 129 mm (2 7/8 x 2 1/4 x 5 1/8 inches)	
Supplied accessories	Lens mount cap (1), Operating instructions (1), Menu operations (1), AC power cable (1, SSC-DC578P only)	

## Video Cameras

	SSC-E453P	SSC-E458P	SSC-E473P	SSC-E478P
Image device	1/3 type Interline Transfer CCD with SuperExwawe			
Picture elements (H x V)	752 x 582			
Sensing area	1/3 type format (4.8 x 3.6 mm)			
Signal system	PAL standard			
Sync system	INT/Line Lock			
Horizontal resolution	540 TV lines			
Lens mount	CS			
Minimum illumination	0.55 lux at F1.2 (50 IRE, AGC ON, Turbo mode)		Colour: 0.55 lx at F1.2 (50 IRE, AGC ON, Turbo mode) /B&W: 0.05 lx at F1.2 (50 IRE, AGC ON, Turbo mode)	
Day/Night function	-		Auto/Manual selectable	
AGC	TURBO/OFF switchable			
CCD IRIS	ON/OFF switchable, 1/50 to 1/100,000 s			
White Balance (WB)	Auto White Balance Pro(ATW Pro) /Auto Wite Balance(ATW)			
Backlight Compensation (BLC)	ON/OFF switchable			
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)			
Video out	BNC, 1.0 Vp-p, 75 Ω, sync negative			
Auto iris lens	DC servo			
Operating temperature	-10 °C to 50 °C (14 °F to 122 °F)			
Storage temperature	-40 °C to 60 °C (-40 °F to 140 °F)			
Power requirements	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 V to 240 V ±10%, 50 Hz	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 V to 240 V ±10%, 50 Hz
Power consumption	3.5 W		4.0 W	
Mass	360g (12 oz)	390 g (13 oz)	380 g (13 oz)	400g (14 oz)
Mass including front & rear covers	440g (15oz)	470 g (1 lb)	460 g (1 lb 1 oz)	480g (1 lb 8 oz)
Dimensions (W x H x D)	60 x 53 x 118 mm (2 3/8 x 2 1/8 x 4 3/4 inches)		60 x 53 x 124 mm (2 3/8 x 2 1/8 x 5 inches)	
Dimensions including front and rear covers	60 x 53 x 240 mm (2 3/8 x 2 1/8 x 9 1/2 inches)		60 x 53 x 246 mm (2 3/8 x 2 1/8 x 9 3/4 inches)	
Supplied accessories	Lens mount cap (1), Operating instructions (1), Front cover(1), Rear cover(1), Screws(2), Lens mount cap (1), Operating instructions (1), Front cover (1), Rear cover (1), Screws (2), Power cable (1) (SSC-E458P & E478P)			

## Video Cameras

	SSC-DC372P	SSC-DC378P	SSC-DC198P
Image device	1/3 type SuperHAD CCD		1/3 type CCD
Picture elements (H x V) 500 x 582		752 x 582	
Sensing area	1/3 type format (4.8 x 3.6 mm)		
Signal system	PAL		
Sync system	Internal		Line Lock
Horizontal resolution 330 TV lines		480 TV lines	
Lens mount	CS mount		
Minimum illumination	0.8 lx at F1.2 (50 IRE, Turbo mode)		
	0.3 lux at F1.2 (30 IRE, AGC ON, AGC ON, Turbo mode)		
	0.6 lux at F1.2 (50 IRE, AGC ON, Turbo mode)		
	3.0 lux at F1.2 (100 IRE, AGC ON, Turbo mode)		
AGC	ON (Turbo mode, up to 24 dB) or OFF switchable		ON/OFF switchable
CCD IRIS	1/50 to 1/100,000 s		
White Balance (WB)	Auto-Tracing White Balance		
Back-Light Compensation (BLC)	ON or OFF switchable		
S/N ratio	50 dB or more (AGC OFF, Weight ON)		
Video out	BNC, 1.0 Vp-p, 75 Ω sync negative		
Auto iris lens	DC servo		
DC/video servo switchable			
Operating temperature	-10°C to 50°C (14°F to 122°F)		
Storage temperature	-40°C to 60°C (-40°F to 140°F)		
Power requirements	DC 12 V ±10%		AC 220 to 240 V ±10%, 50 Hz
Power consumption	3.2 W	4.0 W	3.7 W
Mass	355 g (13 oz)	385 g (14 oz)	390 g (14 oz)
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8 x 2 1/4 x 4 3/4 inches)		
Supplied accessories	Lens mount cap (x 1), Lens mount cap (x 1), Lens mount cap (x 1) Operating instructions (x 1) Operating instructions (x 1), Operation manual (x 1) Power cable (x 1)		

	SSC-DC172P
Image device	1/3 type Interline Transfer CCD
Picture elements (H x V)	500 x 582
Sensing area	1/3 type format (4.8 x 3.6 mm)
Signal system	PAL standard
Sync. System	Internal
Horizontal resolution	330 TV lines
Lens mount	CS
Minimum illumination	0.6 lx at F1.2 (50 IRE, AGC ON, Turbo mode)
AGC	TURBO/OFF switchable
CCD IRIS	ON/OFF switchable (1/50 to 1/100,000 s)
White Balance (WB)	Auto White Balance (ATW)
Back-Light Compensation (BLC)	ON/OFF switchable
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)
Video out	BNC, 1.0 Vp-p, 75 Ω sync negative
Auto iris lens	DC servo
Operating temperature	-10°C to 50°C (14°F to 122°F)
Storage temperature	-40°C to 60°C (-40°F to 140°F)
Power requirements	DC 12 V ±10%
Power consumption	3.0 W
Mass	355 g (12 oz)
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8 x 2 1/4 x 4 3/4 inches)
Supplied Accessories	Lens mount cap (x 1), Operating instructions (x 1)

## Video Cameras

	SSC-M383CE	SSC-M388CE
Image device	1/3 type Interline Transfer CCD	
Picture elements (H x V)	752 x 582	
Sensing area	1/3 type format (4.8 x 3.6 mm)	
Signal system	CCIR standard	
Sync. System	INT/LL	LL
Horizontal resolution	570 TV lines	
Lens mount	CS	
Minimum illumination	0.04 lux at F1.2 (30 IRE, AGC ON, Turbo mode)	
	0.07 lux at F1.2 (50 IRE, AGC ON, Turbo mode)	
	0.3 lux at F1.2 (100 IRE, AGC ON, Turbo mode)	
AGC	ON/OFF (switchable)	
Shutter	ON/OFF (switchable), 1/50 to 1/100,000 s	
Backlight	ON/OFF switchable	
Compensation (BLC)		
S/N ratio (AGC OFF, Weight ON)	More than 50 dB	
Video out	1.0 Vp-p; 75 Ω sync. negative	
Operating temperature	-10 to 50 °C (14 to 122 °F)	
Storage temperature	-40 to 60 °C (-40 to 140 °F)	
Power requirements	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 V to 240 V ±10%, 50 Hz
Power consumption	2.6 W	
Mass	360 g (13 oz.)	390 g (14 oz.)
Auto iris lens	DC/video servo switchable	
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8" x 2 1/4" x 4 3/4")	
Supplied accessories	Lens mount cap (x1) Operation manual (x1)	

	SSC-M183CE	SSC-M188CE
Image device	1/3 type Interline Transfer CCD	
Picture elements (H x V)	500 x 582	
Sensing area	1/3 type format (4.8 x 3.6 mm)	
Signal system	CCIR standard	
Sync. System	INT/LL	LL
Horizontal resolution	380 TV lines	
Lens mount	CS	
Minimum illumination	0.03 lux at F1.2 (30 IRE, AGC ON, Turbo mode)	
	0.06 lux at F1.2 (50 IRE, AGC ON, Turbo mode)	
	0.25 lux at F1.2 (100 IRE, AGC ON, Turbo mode)	
AGC	ON/OFF (switchable)	
Shutter	ON/OFF (switchable), 1/50 to 1/100,000 s	
Backlight	ON/OFF switchable	
Compensation (BLC)		
S/N ratio (AGC OFF, Weight ON)	More than 50 dB	
Video out	1.0 Vp-p; 75 Ω sync. negative	
Operating temperature	-10 to 50 °C (14 to 122 °F)	
Storage temperature	-40 to 60 °C (-40 to 140 °F)	
Power requirements	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 V to 240 V ±10%, 50 Hz
Power consumption	2.5 W	
Mass	360 g (13 oz.)	390 g (14 oz.)
Auto iris lens	DC/video servo switchable	
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8" x 2 1/4" x 4 3/4")	
Supplied accessories	Lens mount cap (x1) Operation manual (x1)	



## Video Cameras

	SSC-CD73VP	SSC-CD43VP
Picture device	1/4 type Interline Transfer SuperHAD CCD	
Picture Elements (H x V)	752 x 582	
Built-in lens	f = 3.0 to 8.0 mm, F1.0 Auto iris	
Lens mount	CS Mount	
View angle (D, H, V)	(H): 66.6° (wide), 26.9° (tele) (V): 49.3° (wide), 20.1° (tele)	
Focus length	Minimum object distance: 0.2 m	
Signal system/ scanning system	PAL color system	
White Balance	ATW	
Sync. system	Internal (DC 12 V/AC 24 V)/ Line lock (AC 24 V only) switchable	
External sync.	AC line lock (for AC 24 V)	
V-phase control	±90°	
Horizontal resolution	480 TV lines	
S/N ratio (AGC OFF, weight ON)	More than 50 dB	
Min. illumination (Turbo AGC ON)	Colour: 0.9 lux (F1.0, 50 IRE, AGC ON) B&W: 0.2 lux (F1.0, 50 IRE, AGC ON)	0.9 lux (AGC ON)
AGC	ON (Turbo mode)/OFF switchable	
Iris control mode	Auto Iris Lens	
Video output	1.0 Vp-p, 75 Ω negative sync.	
Weather proof	IP66	—
Operating temperature	-20° C to +50° C (-4° F to +122° F)	
Operating humidity	20 % to 80 % (non condensing)	
Input voltage	AC 24 V/DC 12 V	
Power consumption	3.5 W	3.3 W
Mass	Approx 870 g (1lb. 14 oz.)	Approx 440 g (16 oz.)
Dimensions (W x H x D)	Base: 147 x 111 x 148 mm Bubble: 94 mm (ø)	Base: 121 x 123 x 106 mm Bubble: 91 mm (ø)
Optional accessories	YT-ICB73V In-ceiling bracket	YT-ICB43V In-ceiling bracket
	EVI-D100P	EVI-D70P/D70PW
Video Signal	PAL	
Image Sensor	1/4 type SuperHAD CCD	
Effective Pixels	752 (H) x 582 (V)	
Horizontal Resolution	460 TV lines (Wide end)	
Lens	x10 Optical Zoom, x40 with Digital Zoom, f = 3.1 to 31, F 1.8 to 2.9	18x zoom, f=4.1 mm (Wide) to 73.8 (Tele), F1.4 to F3.0
Horizontal Angle of View	6.6° to 65°	2.7° (Tele end) to 48° (Wide end)
Minimum Object Distance	100 mm (Wide end), 600 mm (Tele end)	10 mm (Wide end), 800 mm (Tele end)
Minimum Illumination	3.5 lux (F1.8)	1 lux (F1.4)
Auto Exposure	Auto/Manual/Priority AE, Exposure compensation, Backlight Compensation	
Shutter Speed	1/3 to 1/10,000 s	1 to 1/10,000 s
Gain	—	Auto/Manual (-3 to +28 dB, 2 dB steps)
White Balance	Auto, ATW, Manual, One Push, 3200K, 5800K	Auto/ATW/Indoor/Outdoor/One push/Manual
Effects	Mirror Image, Still Image on Field Memory, Pastel Image, Negative/Positive Reversal, Sepia Image, Monochrome Image, Enhanced Contrast, Mosaic Image, Vertical Stretch, Horizontal Stretch, Motion Image on Still Image, Continuous Still Image, Motion Images on Binaried Still Image, After-image Lag of Moving Object	Neg. Art, Black & White
S/N Ratio	More than 50 dB	
Position preset	—	6 positions
Pan/Tilt	Horizontal: ±100° (Max. speed: 300°/s), Vertical: ±25° (Max. speed: 125°/s) (in 0.07° increments)	Pan: ±170° (Max. speed: 100°/s), Tilt: -30° to +90° (Max. speed: 90°/s)
Video Output	VBS, V/C	
Control Terminal	—	RS-232C (8-pin mini DIN) control (VISCA)/RS-422 (9-pin) control (VISCA), baud rate: 9.6 Kb/s, 38.4 Kb/s DC 10.8 to 13.2 V
Power Requirements	DC 10.8 to 13.0 V	DC 10.8 to 13.2 V
Power Consumption	Max. 13.2 W (at 12 V DC)	12 W
Operating Temperature	0 to 40 °C (32 to 104 °F)	0 to 40 °C (32 to 104 °F)
Storage Temperature	-20 to 60 °C (-4 to 140 °F)	-20 to +60 °C (-4 to +140 °F)
Dimensions (W x H x D)	113 x 120 x 132 mm (4 1/2 x 4 3/4 x 5 1/4)	132 x 144 x 144 mm (5 1/4 x 5 3/4 x 5 3/4 inches)
Mass	860 g (1 lb. 14 oz.)	950 g (2 lb. 2 oz.)
Supplied accessories	AC Adaptor (x1), IR Remote Commander unit (x1), Velcro tape (x1), Operation manual (x1)	AC adaptor, IR remote commander unit, Ceiling bracket, Operating instructions

## Video Recorders

	HSR-X206P
Mass	6.4 kg (14 lb 10 oz)
Dimensions	420 (W) x 96 (H) x 376 (D) mm (16 5/8 x 3 7/8 x 14 7/8 inches)
Power requirements	AC 220 to 240 V, 50/60 Hz
Power consumption	32 W
Operating temperature	5 to 40 °C (41 to 104 °F)
Operating humidity	Less than 80 %
HDD capacity	320 GB (160 GB x 2)
Input	6 channels, VBS, VS (BNC) 1.0 Vp-p, 75 Ω unbalanced
Output (Loop through)	6 channels, VBS, VS (BNC) 1.0 Vp-p, 75 Ω unbalanced
Monitor output 1	1 channel, VBS, VS (BNC) 1.0 Vp-p, 75 Ω unbalanced
Monitor output 2	1 channel, VBS, VS (BNC) 1.0 Vp-p, 75 Ω unbalanced
Video compression	Motion-JPEG
Picture quality mode	HYPER: 52 kB/picture, SUPER: 44 kB/picture, HIGH: 32 kB/picture, MID: 24 kB/picture, LOW: 17 kB/picture
Picture resolution	720 x 288 pixels (Field mode)
Horizontal resolution	More than 500 TV lines (Hyper mode)
Signal to noise ratio	48 dB (typical, Hyper mode)
MIC input	1 channel monaural (Mini jack), -60 dB, 10 kΩ unbalanced
Line input	1 channel monaural (Phono jack), -8 dB, 27 kΩ unbalanced
Line output	1 channel Monaural (Phono jack), -8 dB, 600 Ω unbalanced
Signal to noise ratio	40 dB (typical)
Distortion	Less than 4 % at 1 kHz
Ethernet	100Base-TX/10Base-T
Alarm in 1-6	Normal open, Low active
Sensor Alarm out 1-6	Open collector, Low active
Remote 1 / Remote 2	2-wire type with resistance-based identification system
Alarm out	Open collector, Low active
Alarm reset	Incl. video loss reset, normal open, Low active
Clock set in	Normal open, Low active
Clock set out	Non rec out
Warning out	5 V/5.7 kΩ Low active
DK full out	5 V/5.7 kΩ Low active
Alarm full out	5 V/5.7 kΩ Low active
External timer in	Normal open, Low active
Supplied Accessories	AC power code (1) Power cord tie (1) Rack mount kit (1) Operation Manual (1) Ferrite core (4)
Optional Accessories	MSH-M32N/M64N/M128N Memory Stick Duo, MSAC-MC1 Memory Stick Duo Adaptor for Compact Flash Slot
	HSR-X209P / HSR-X216P
HDD capacity	320 GB/HDD Unit (160 GB: up to 2 HDDs)
Playback During Recording	Yes
Video signal	CCIR standard, PAL colour
Recording system	N/A
Compression	Motion JPEG
Recording/Playback time	2686 hours in High mode or 1653 hours in Hyper mode (1-channel input, 1 picture/s)
Fast forward/Rewind time	N/A
Video Input	9 channels (16 for the HSR-X216P), VBS, VS (BNC) : 1.0 Vp-p, 75 Ω unbalanced
Video Output	9 channels (16 for the HSR-X216P), VBS, VS (BNC), 1.0 Vp-p, 75 Ω unbalanced
Loop out connector	BNC (9) (16 for the HSR-X216P)
Split screen display	4 patterns (6 for the HSR-X216P)
Quality mode	Hyper, Super, High, Mid and Low modes (selectable)
Horizontal resolution	More than 500 TV lines (Hyper mode)
S/N ratio	40 dB (typical)
Mass	7.0 kg (15 lb. 7 oz.)
Dimensions (W x H x D)	420 x 96 x 376 mm (16 5/8" x 3 7/8" x 14 7/8")
Power	AC 120 V ±10%, 60 Hz ±10%
Power consumption requirements	AC 120 V ±10%, 60 Hz ±10%: 30 W
Operating temperature	5 to 40 °C (41 to 104 °F)
Usable tape	N/A
Parallel input/ output connector	—
Control terminal	RS-232C, 9 pin D-sub, RS-485 terminal, Series terminal, Remote terminal, SW OUT terminal
Audio	
Mic input	1 channel Monaural (Mini jack), -60 dBs, 10 kΩ unbalanced
Audio input	1 channel Monaural (Phono Jack), -8 dBs, 27 kΩ unbalanced
Audio output	1 channel Monaural (Phono Jack), -8 dBs, 600 Ω unbalanced
Audio S/N ratio	40 dB (typical)
Supplied accessories	AC power cord (1) Power cord tie (1) Rack mount kit (1) Operation manual (1)
Optional accessories	MSA-8A/16A/32A/64A/128A Memory Stick MSX-256/512/1G Memory Stick PRO MSAC-PC2 Memory Stick Adaptor MSAC-PC3 Memory Stick/Memory Stick PRO Adaptor

## Video Recorders

	SVT-N24P	SVT-N72P	SVT-RA96P
Tape format	VHS		
Tape speed	23.39 mm/s (3-hour mode)	11.70 mm/s (6 or 8-hour mode)	
Fast forward/rewind time	—	Approx. 100 seconds (with an E-180 tape)	
Recording system	Rotary 4-Head Helical Scanning System		
Video Input	BNC: 1.0 Vp-p, 75 Ω, unbalanced		
Video Output	BNC: 1.0 Vp-p, 75 Ω, 75 Ω, unbalanced		
Recording modes	3, 12, 24 Hrs. (with an E-180 tape)	3, 12, 24, 48, 72 Hrs (with an E-180 tape)	6, 18, 30, 48, 72, 96 Hrs (with an E-180 tape)
Record interval (Approx.)	1/50 to 0.18 s	1/50 to 0.5 s	1/50 to 0.34 s
Mic input	ø 3.5 mm Mini-jack, -60 dB, 10 kΩ		
Audio recording	3, 12, 24 Hour Mode	3, 12, 24 Hour Mode	6, 18, 30 Hour Mode
Audio input	-8 dB, 27 kΩ(phono jack)		
Audio output	-8 dB, 600 Ω(phono jack)		
Audio S/N ratio	42 dB	40 dB	40 dB
Horizontal resolution	350 TV lines (B/W) 300 TV lines (Colour)	350 TV lines (B/W) 240 TV lines (Colour)	350 TV lines (B/W) 240 TV lines (Colour)
S/N Ratio	43 dB	44 dB	42 dB
Control terminal	ø 3.5 mm Mini-jack RS-232C/RS-485 interface		
Time/date	Yes		
Built-in timer	Yes	7-Day/8-Event	7-Day/8-Event
Alarm input	Low level		
Alarm output	+5 V, 5.7 kΩ(Low active)		
Alarm REC. speed	3, 12 Hrs. or No change	3, 12, 24 Hrs. or No change	E-180 type: 6, 18 Hrs. or No change E-240 type: 8, 24 Hrs. or No change
Alarm search	No	Yes	
Alarm scan	Yes		
Alarm log	Yes		
Operating temperature	5 to 40 °C (41 to 104 °F)		
Power requirement	AC 220 to 240 V, 50/60 Hz		
Power consumption	18 W	14 W	16 W
Mass	3.8 kg (8 lb. 6 oz.)	4.3 kg (9 lb. 6 oz.)	4.3 kg (9 lb. 6 oz.)
Dimensions (W x H x D)	240 x 96.5 x 333 mm (9 1/2" x 3 7/8" x 13 1/8")	420 x 100 x 300 mm (16 5/8" x 4" x 11 7/8")	420 x 100 x 300 mm (16 5/8" x 4" x 11 7/8")
Supplied accessories	AC power cable (x1) Operation manual (x1)		
Optional accessories	SVT-RM10 Remote control unit SVT-RS100 Interface board (RS-232C/RS-485)		

## HSR-DCT

Dimensions (W x H x D)	298 x 210 x 210 mm
Power supply	12 V DC 1A
Power consumption	15 W
Operating temperature	0° to 45 °C (32° to 113°F)
PTZ control	Joystick, 3 axis proportional
Display	320 x 240 pixels back-lit by white LED
Languages	Italian, English, French and German Expandable to 12
Security	Three passwords (Connection, Set-up, Alarm reset)
Customisation	Up to 30 user maps
Macro function keys	Max. 20
INTERFACES	
Serial I/F	3x RS-485 (RJ11 connectors): One line for Sony HSR-X209P/X216P. Two lines for two independent telemetry daisy chain up to 999 telemetry receivers 1x RS-232C for PC connection (layout creation, keyboard set-up and firmware update)
SUPPORTED PROTOCOLS	
Speed Dome control	Dome Elmo D7720B Dome Ernitec Saturn Dome JVC TK-C675, TK-C676 Dome Panasonic 600 and 850 Dome Pelco Spectra and Lite (Protocol D) Dome Samsung SCC64-1P Dome Sensormatic Delta Dome II Dome Star Dome VCL VC5S-ORBM
Supplied Accessories	Instruction Manual, wide range power supply, 3 power cables, 6 telephone cables, 6 shunt boxes RJ jack

## Video Monitors

	SSM-14L1	SSM-20L1
Colour system	NTSC, PAL	
Power requirements	AC 100 to 240 V, 50/60 Hz	
Power consumption (Typical)	68 W	75 W
Operating temperature	0 to 35 °C (32 to 95 °F)	
Storage temperature	-10 to 40 °C (14 to 104 °F)	
Operating humidity	35 to 85% (No condensation)	
Storage humidity	0 to 90%	
Dimensions (W x H x D)	Approx. 346 x 340 x 414 mm (13 5/8 x 13 1/2 x 16 3/8 inches)	Approx. 449 x 441 x 502 mm (17 3/4 x 17 3/8 x 19 7/8 inches)
Mass	Approx. 15.0 kg (33 lb. 1 oz.)	
CRT	CRT type*: 14-inch Trinitron, AG pitch: 0.25 mm Phosphor: P-22, Effective picture size (4:3) 267.5 (W) x 200.6 (H) mm, 340.0 (Diagonal) mm	CRT type*: 20-inch Trinitron, AG pitch: 0.4 mm Phosphor: P-22, Effective picture size (4:3) 385.8 (W) x 290.6 (H) mm, 481.3 (Diagonal) mm
Centre Resolution (Y/C input 4:3)	600 TV lines	
Frequency response	8.0 MHz (0 -6 ) dB	
Scanning frequency	1 5.734 kHz (NTSC), 15.625 kHz (PAL)	
Normal scan	7% overscan	
Linearity	Horizontal: Less than 8% (typical), Vertical: Less than 7% (typical)	
Convergence	Centre: 0.4 mm (Typical), Peripheral: 0.5 mm (Typical)	Centre: 0.5 mm (Typical), Peripheral: 0.7 mm (Typical)
Raster size stability	Horizontal: 1.0% (typical), Vertical: 1.5% (typical)	
HV regulation	3.5% (typical)	4.0% (typical)
Colour temperature	D65/D93/User adjustable	
Input/Output		
Line A	Composite: Loop-through BNC, 1.0 Vp-p +3 dB/-6 dB, sync negative, automatic 75 Ω termination Y/C*: Loop-through Mini Din 4-pin, automatic 75 Ω termination Y: 1.0 Vp-p, sync negative Audio: Phono jack, -5 dBu 47 kΩ or higher	
Line B	Composite: Loop-through BNC, 1.0 Vp-p, sync negative, automatic 75 Ω termination Y/C*: Mini Din 4-pin, automatic 75 Ω termination Y: 1.0 Vp-p +3 dB/-6 dB, sync negative C: 0.286 Vp-p (NTSC), 0.3 Vp-p (PAL) 75 Ω termination Audio: Phono jack, -5 dBu 47 kΩ or higher	
Remote	Parallel remote: Modular 8-pin (Fixed)	
Audio output	0.8 W (Distortion: Less than 5%)	
Regulation Compliance	UL-1950, CSA-950, EN 60950, VCCI class A, FCC class A, IC class A, C-Tick, CE (LVD), CE (EMC), JEITA, DHHS, DNHW, CCC, KTL, BSMI	

\* Viewable area, measured diagonally

\*\* The Y/C input has priority over the composite input

## Printers

	UP-51MD/1	UP-21MD	UP-D23MD
Printing method		Dye sublimation printing	
Resolution	300 dpi	403 dpi	403 dpi (thermal head)
Gradation	256 levels	256 levels	YMC image process using 8bits/256 gradations per colour, approx. 16.7 million colours per dot
Effective print pixels	Over 16.7 million colours per dot 1920 x 1176 dots	Over 16.7 million colours per dot S Size 1524 x 1176 dots L Size 1524 x 1458 dots	Over 16.7 million colours per dot S size 1520 x 1144 dots L size 2000 x 1520 dots
Media size	A5 Size 100 x 90 mm (5 7/8" x 8 3/8")	A6 S Size 100 x 90 mm (4" x 3 9/8") A6 L Size 144 x 100 mm (5 3/4" x 4")	S size 100 x 90 mm (4" x 3 9/8") L size 144 x 100 mm (5 3/4" x 4")
Print area	S Size : 117.0 x 170.9 mm L Size 127.4 x 165.1 mm	S Size 95.8 x 72.7 mm (Full print mode) L Size 126.9 x 91.9 mm (Full print mode)	S size Full 95.8 x 72.1 mm (3 4/5" x 2 4/5") L size Full 126 x 95.8 mm (5 1/25" x 3 4/5")
Printing time	UPC-510 (Colour Media): approx. 22 seconds UPC-540 (Self Laminating Media): approx. 33 seconds	UPC-21S approx. 17 seconds UPC-21L approx. 25 seconds	UPC-21S approx. 19 seconds (High-speed mode) UPC-21L approx. 29 seconds (High-speed mode)
Picture memory	Eight frame memories	Four Frame Memories*	18 Mbytes (Two Frame Memories)
Inputs/Outputs		Video, S-Video, RGB	—
Control terminals	RM-5500, Special mini, Stereo mini, Footswitch, RS-232C (D-Sub,25-pin)	Special mini, Stereo mini, D-sub 9-pin	USB (Revision 2.0)
Power requirements	AC 100 to 120V, 50/60 Hz AC 220 to 240, 50/60Hz	AC 100 to 120 V: 1.8 A; AC 220 to 240 V: 1.0 A	—
Power consumption	2.8 A		
Mass	14 kg (31 lb)	6.5 kg (14 lb. 5 oz.)	Approx. 6.5 kg (14 lb. 5 oz.)
Dimensions (W x H x D)	370 x 125 x 475 mm (14 5/8" x 5" x 18 3/4")	212 x 125 x 395 mm (8 3/8" x 5" x 15 5/8")	212 x 125 x 395 mm (8 3/8" x 5" x 15 5/8")
Driver Software	—	—	Windows 98/Me, Windows 2000/XP
Safety Standards	UL 1950, UL 2601-1, CSA C22.2 No. 950, No. 601.1 EN 60950, EN 60601-1	UL2601-1, CSA C22.2 No.601.1, EN60601-1	UL60950+CSA C22.2 No.950+UL2601-1 +CSA C22.2 No.601.1 EN60950+EN60601-1, IEC60601-1+IEC60950
Supplied accessories	Ink Ribbon Holder (x1) AC power cable (x1) Paper tray (x1) Print tray (x1) Colour Print Pack (20 prints) Operation manual (x1)	AC power cable (x1) Operation manual (x1) Print tray (x1) Colour Print Pack (10 prints)	Print tray (L tray) (x1) CD-ROM (x1) Thermal head cleaning cartridge (x1) Caution sheet 'Before Using this Printer' (x1) USB connecting cable (Hi-speed USB Revision 2.0) (x1) Stoppers (x2)
Optional accessories	UPC-540/540MD Self-laminating Colour Print Pack (102 prints) UPC-510 Colour Print Pack (200 prints) UPA-50RH Ink Ribbon Holder RM-5500 Wired/Wireless Remote Commander RM-91 Remote Control Unit FS-30 Foot Switch	UPC-21S Colour Print Pack (240 prints) UPC-21L Colour Print Pack (200 prints) RM-5500 Wired/Wireless Remote Control Unit RM-91 Remote Control Unit UPA-21SA Slide Adaptor	UPC-21S Colour Print Pack (240 prints) UPC-21L Colour Print Pack (200 prints) UPA-21SA Slide Adaptor

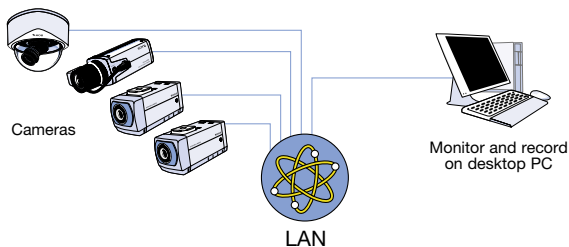
All print quantity numbers are measured in default setting. All non-metric weights and measures are approximate.  
\* Eight frame memories will be available soon.

## Printers

	UP-960CE	UP-D895
Printing method	Direct thermal printing	
Thermal head	162 dpi	325 dpi
Gradation	256 grey levels	
Effective print pixels	(CCIR) 1280 x 607 dots (EIA) 1280 x 507 dots	Max. 1280 x 4096 dots
Print area	(CCIR) (Standard mode and Wide 1 mode) (EIA) Standard mode: 190 x 142 mm (7 1/2" x 5 5/8") Side mode: 181 x 243 mm (7 1/4" x 9 5/8") Standard mode: 190 x 144 mm (7 1/2" x 5 3/4") Side mode: 184 x 243 mm (7 1/4" x 9 5/8")	Max. 100 x 320 mm (4 x 12 5/8")
Printing time	Approx. 12 seconds per screen	
Picture memory	2048 x 1024 x 8 bit	
Inputs/Outputs	Video	Parallel (IEEE 1284) / USB (version 1.0)
Control terminals	Stereo mini	
Power requirements	AC 220 to 240 V, 120 V, 50/60 Hz	100-120 V, 220-240 V, 50/60 Hz
Power consumption	AC 220 to 240 V: 1.3 A; 120 V: 2.4 A	Approx. 120 W Approx. 20 W (stand-by mode)
Mass	8 kg (17 lb. 10 oz.)	
Dimensions (W x H x D)	316 x 132 x 305 mm (12 1/2" x 5 1/4" x 12 1/8")	154 (W) x 105 (H) x 260 (D) mm (6 1/8 x 4 1/4 x 10 1/4 inches)
Driver Software	—	Parallel (IEEE 1284); Windows 95/98/ME/2000, Windows NT 4.0 USB (version 1.0); Windows 98/ME/2000
Safety Standards	EN60950, EN60601-1, CE (MDD, EMC, LVD)	UL: UL 1950, UL 2601-1 CSA: CSA C22.2 No. 950, No. 601.1 TUV: EN 60950, EN 60601-1 CE: LVD, MDD CCIB: GB 4943
Supplied accessories	BNC cable 1.5 m (x1) AC power cable (x1) Operation manual (x1) UPP-110HG print pack (x1) Head cleaning sheet (x1)	Driver Software (1) AC Power Cord (x1) Operation Manual (x1) UPP-110HG High Glossy Print Media (x1) Head Cleaning Sheet (x1)
Optional accessories	UPP-210HD Type II High Density Print Paper (126 prints) UPP-210SE Type II Normal Density Print Paper (126 prints) RM-91 Remote Control Unit FS-20 Foot Switch	UPP-110HG High Glossy Print Media (110 mm x 18 mm) (x1) UPP-110HD High Density Print Media (110 mm x 20 mm) (x1) UPP-110S Normal Type Print Media (110 mm x 20 mm) (x1)

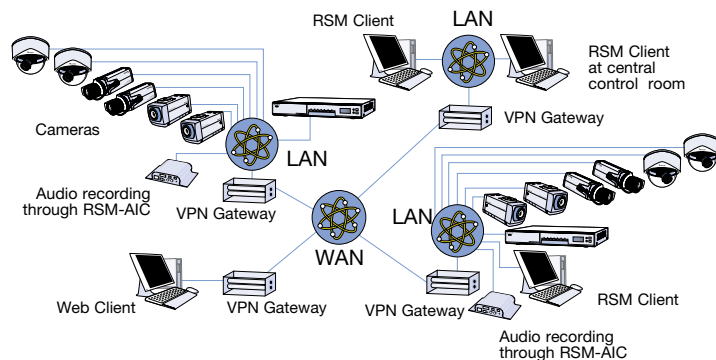
## Network Video Monitoring - Small Installation

RealShot Manager software running on a standalone PC allows viewing, recording and management of images from up to 32 cameras. Images from all cameras can be viewed on-screen simultaneously, while RealShot Manager also allows remote configuration and control of camera functions such as image quality, resolution and PTZ.



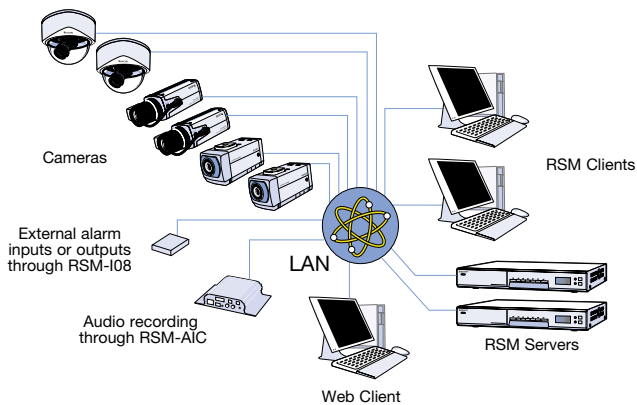
## Network Video Monitoring - Multiple Sites Installation

Multiple sites at a number of different locations can be linked across a WAN (Wide Area Network) or the Internet. A VPN (Virtual Private Network) gateway at each site location ensures that camera images, alarm signals and audio can be sent securely over public networks. Cameras can be controlled by authorised users at any location using RSM client software running on a standard PC connected to the network. Simple viewing of camera images is also possible via a PC and web browser with no additional software required.

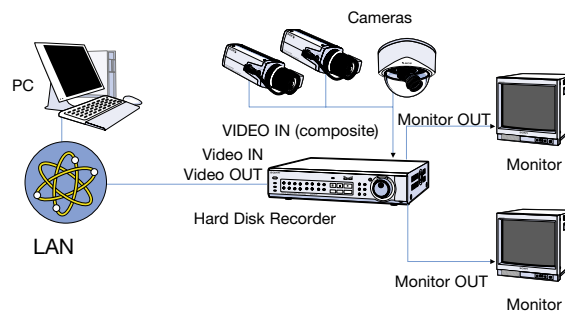


## Network Video Monitoring - Medium Sized Installation

Attaching one or more RealShot Manager (RSM) servers (FSV-RSM9/ FSV-RSM16) to a network allows storage and management of images from up to 32 connected cameras. 'Live' or recorded images can be viewed on any client PC running RSM or a standard web browser, connected via either LAN or the Internet. Audio and signals from existing alarm sensors can be carried across the same network using the RSM-AIC and RSM-I08, eliminating the need for additional cabling.



## Hard Disk Recording (HSR-X206P)



## Day/Night and Remote Controlled Operation (SSC-DC593P)

